



U.S. Department  
of Transportation

**Research and  
Special Programs  
Administration**

DOT-E 7477  
(TENTH REVISION)

**FEB 17 2000**

400 Seventh Street, S.W.  
Washington, D.C. 20590

EXPIRATION DATE: January 31, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Meggitt Safety Systems, Inc. (MSSI)  
(Formerly Whittaker Safety Systems)  
Simi Valley, California
2. PURPOSE AND LIMITATION: This exemption authorizes the transportation in commerce of certain Division 2.2 materials in non-DOT specification containers. This exemption provides no relief from any regulation other than as specifically stated herein.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR 173.302(a)(1), 173.304(a)(1), and 175.3.
5. BASIS: This exemption is based on the application of Meggitt Safety Systems (formerly Whittaker Safety Systems) dated January 27, 2000, submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous materials description -- proper shipping name	Hazard Class/ Division	Identi- fication Number	Packing Group
Bromotrifluoromethane or Refrigerant gas, R 13B1	2.2	UN1009	N/A
Carbon dioxide	2.2	UN1013	N/A
Nitrogen compressed	2.2	UN1066	N/A
Compressed gas, n.o.s.	2.2	UN1956	N/A

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7. PACKAGING AND SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification seamless aluminum cylinder in conformance with DOT-3AL having a marked service pressure of 1800 psi, modified by enlarging the end opening in accordance with Systron Donner Engineering reports ER-76-115 dated April 26, 1976, or ER-91-031 dated June 29, 1992, or having a marked service pressure of 2015 modified by enlarging the end opening in accordance with ER-76-127 dated September 22, 1976, on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA). All cylinders manufactured after January 1, 1992 must be made of aluminum alloy 6061-T6. The modification is as follows:

1. For cylinders modified to provide 1.750-12UN-2B threaded opening, the minimum outside diameter of the cylinder neck must be 2.190 inches.
2. For cylinders modified to provide 1.000-12UN-2B threaded opening, the minimum outside diameter of the cylinder neck must be 1.410 inches.
3. Remove DOT-3AL stamping and replace with "DOT-E 7477".
4. The following specific designs are authorized.

Part #	Outside Diameter (Inches)	Length (Inches)	New Thread Size	Cycling Test
M-B, M9 or C-2	4.375	9.25	1.000-12UN-2B	No
M-D	4.375	16.62	1.000-12UN-2B	No
M-E	4.375	25.75	1.000-12UN-2B	Yes
C10	6.890	16.75	1.750-12UN-2B	No
C15	6.890	23.37	1.750-12UN-2B	Yes
C20	8.000	23.62	1.750-12UN-2B	No
C35	8.000	38.37	1.750-12UN-2B	Yes
C50	8.750	45.37	1.750-12UN-2B	Yes
C70	9.800	51.93	1.750-12UN-2B	Yes

b. Prior to the initial shipment of any specific design, cyclic pressurization tests must have been performed on three representative modified cylinders of each design under the surveillance of an independent inspector in accordance with paragraph 7.a 4. above.

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c. Cylinders having a marked service pressure of 1800 psi, that have been modified prior to the issuance of the first revision of this exemption may continue to be used under the terms of this exemption.

d. TESTING - Cycling tests must be performed by hydrostatically pressurizing the cylinder between approximately zero and the marked service pressure at a rate not to exceed 10 cycles per minute. Cylinders must withstand 100,000 such pressure cycles without showing evidence of distortion, deterioration, or failure. All cylinders used in cycle tests must be destroyed.

e. Each cylinder must be retested at least every five years as prescribed in § 173.34(e) for DOT Specification 3AL cylinders, except that a cylinder condemned for excessive permanent expansion may not be reheat-treated.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. A cylinder which has been subjected to the action of fire must not again be placed in service.

d. Reports identifying all cylinders modified under this exemption must be prepared and retained on file by Meggitt Safety Systems, Inc., (formerly Whittaker Safety Systems). Prior to renewal of the exemption a listing of these cylinders must be submitted to the OHMEA.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, and cargo aircraft only.

10. MODAL REQUIREMENTS: A copy of this exemption must be carried aboard each cargo vessel or aircraft used to transport packages covered by this exemption. The shipper must furnish a copy of this exemption to the air carrier before or at the time the shipment is tendered.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

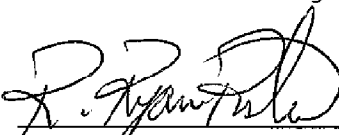
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued at Washington, D.C.:

  
For Robert A. McGuire

Acting Associate Administrator  
for Hazardous Materials Safety

**FEB 17 2000**

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.  
Attention: DHM-31.

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